Math 116: Worksheet 2

Owen Jones and James Dowty

1/25/2024

1. $168 + 2 \cdot 66 + 36$
   $66 = 36 + 30$
   $36 = 30 + 6$
   $30 = 5 \cdot 6 + 0$
   $\Rightarrow \gcd(168, 66) = 6$

2. $6 = 36 - 30 = 2 \cdot 36 - 66 = 2 \cdot (168 - 2 \cdot 66) - 66 = 2 \cdot 168 - 5 \cdot 66$

3. $\gcd(21390860981723987544, 394876293865982736) = 24$

4. $13 \cdot 69 - 7 \cdot 128 = 1$

5. $-541753484813699158 \cdot 42000000000000 + 1059549225983 \cdot 21474836472147483647 = 1$